

24-bit 192kHz DAC with advanced digital filtering

WM8741

A revolutionary audio DAC – providing the ultimate audio experience for applications where only the best is good enough.

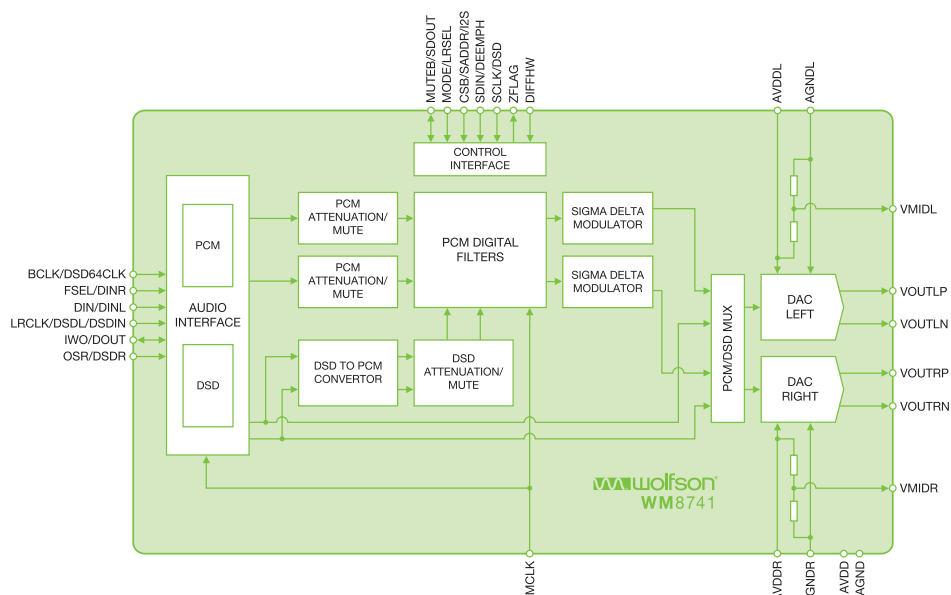
The WM8741 is an ultra high performance stereo DAC, engineered for unparalleled sound quality targeted at a broad spectrum of high end and professional applications that require high fidelity audio performance.

At the highest echelons of modern audio equipment, the listener's subjective audio experience is just as important as the product's measured performance. Conventional digital filtering and conversion techniques have been blamed as a source of unwanted audio artefacts, which have an impact on the subjective quality of the playback experience.

The WM8741 uniquely addresses these issues – leveraging on Wolfson's 15 years of audio semiconductor experience to produce a new high point for the performance of audio DACs.

Combining the critical performance specifications of high signal to noise and Wolfson's renowned DAC architecture, the WM8741 introduces a range of selectable digital filter options, tailoring the audio conversion to the required listening experience.

The WM8741 allows audio companies who often define themselves by their own individual 'sound' to uniquely shape the subjective quality of the sound.



PRODUCT BENEFITS

- Engineered for better sound with advanced digital filtering options
- Low out-of-band noise with Wolfson's proprietary low-order modulator
- High jitter immunity using Wolfson's multi-bit DAC architecture
- Daisy chain mode allows the interconnection of multiple WM8741 devices
- Pin compatibility with the WM8740

TARGET APPLICATIONS

- Professional audio systems
- AV receivers
- Home theatre systems
- CD, DVD, SACD audio

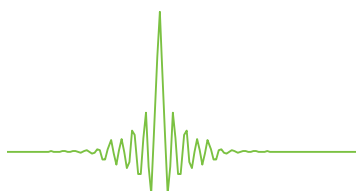
PRODUCT FEATURES	PRODUCT DETAILS
Advanced ultra high performance multi-bit sigma-delta architecture	HIGH FIDELITY AUDIO The WM8741 is a complete differential stereo audio digital-to-analogue converter capable of delivering 125dB SNR ('A'-weighted stereo @ 48kHz). The system includes a dithered digital interpolation filter, fine resolution volume control and digital de-emphasis, followed by a multi-bit sigma delta modulator and switched capacitor multi-bit stage DAC with differential voltage outputs. These features and performance are ideal for applications that require high fidelity audio.
128dB SNR ('A'-weighed mono @ 48kHz)	
125dB SNR ('A'-weighted stereo @ 48kHz)	
Sampling frequency: 32kHz to 192kHz	
Selectable advanced digital filter options	
DSD bit-stream support for SACD™ playback	
Hardware and software control interface modes	SELECTABLE ADVANCED DIGITAL FILTERING WM8741 is engineered to deliver the world's best sounding audio alongside leading edge performance. Traditional digital filtering techniques, whilst offering the potential for unrivalled measured performance, may have deleterious effects on subjective sound quality. The WM8741 is unique in offering digital filtering options dedicated to the achievement of a better audio experience. These filters allow users the flexibility to choose key characteristics that affect frequency response and time domain characteristics.
5.0V analogue, 3.3V digital supply operation	

ANALOGUE REAL WORLD RESPONSE

Post-ringing is a normal occurrence in the natural world, for example the vibration of a drum after it is struck.


TRADITIONAL DIGITAL FILTER RESPONSE

Pre-ringing is an artificial artifact caused by traditional digital filters. Humans can be sensitive to this problem as it doesn't occur in the real world.


WM8741 DIGITAL FILTER RESPONSE

Wolfson's new filter system more closely follows a real world response, resulting in superior sound quality.


DSD SUPPORT

As well as supporting traditional audio formats such as CD and DVD, the WM8741 supports Direct Stream Digital (DSD) data used in SACD™ audio players. The WM8741 supports two DSD modes providing users with the ultimate flexibility. DSD Direct mode bypasses all on-board digital filtering and subjects the audio data to the minimum possible processing between input and output. In DSD Plus mode, the data stream is converted to PCM, allowing users the ability to access the powerful filter combinations available in the WM8741.

WOLFSON LOW-ORDER MODULATOR AND MULTI-BIT DAC ARCHITECTURE

The proprietary low order modulator and multi-bit DAC architecture used in all of Wolfson's audio DACs has a number of benefits. The low order modulator results in low out-of-band noise, reducing the need for external filtering components. The patented dynamic element matching and multi-bit DAC architecture provides world class linearity and high jitter immunity.

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